

CLAIM AMENDMENTS:

1. (currently amended) Preparation method of crystallized sugar from an aqueous solution containing one or several sugars, multivalent cations, monovalent metal cations, monovalent anions and multivalent inorganic anions and/or organic acid anions, characterized in that it comprises operations :

- (a) of replacement of at least a part of said multivalent cations and/or of said multivalent inorganic anions and organic acid anions by monovalent metal cations and/or monovalent anions, respectively, in order to obtain an aqueous solution depleted in multivalent cations and/or multivalent inorganic anions and organic acid anions, and containing the said monovalent metal cations and monovalent anions,
- (b) of nanofiltration of the solution resulting from operation (a) in order to obtain as a retentate, a sugar aqueous juice enriched in sugars, in multivalent cations and in multivalent inorganic anions and/or in organic acid anions, and as a permeate, an aqueous effluent enriched in monovalent anions and monovalent metal cations, and
- (c) of crystallization of at least a part of the retentate resulting from operation (b), in order to obtain crystallized sugar and a mother liquor enriched in monovalent anions and monovalent metal cations.

2. (original) Method according to claim 1, characterized in that the replacement operation of the multivalent cations is performed simultaneously to the replacement operation of the multivalent inorganic anions and/or organic acid anions, or

performed on the aqueous solution having undergone beforehand the replacement operation of the multivalent inorganic anions and/or organic acid anions.

3. (original) Method according to claim 1, characterized in that the replacement operation of the multivalent inorganic anions and/or organic acid anions is performed simultaneously to the replacement operation of the multivalent cations or performed on the aqueous solution having undergone beforehand the replacement operation of the multivalent cations.

4. (previously presented) Method according to claim 3, characterized in that the replacement operation (a) comprises the processing of the aqueous solution with a cationic resin of which the counter-ion is a monovalent metal cation and/or with an anionic resin of which the counter-ion is a monovalent anion.

5. (original) Method according to claim 4, characterized in that the monovalent metal cation forming the counter-ion of the cationic resin and the monovalent anion forming the counter-ion of the anionic resin are of the same type as said monovalent metal cations and said monovalent anions present in the initial aqueous solution, respectively.

6. (previously presented) Method according to claim 5, characterized in that it further comprises an operation:

(d) of regeneration of the cationic resin and/or of the anionic resin.

7. (original) Method according to claim 6, characterized in that regeneration operation (d) comprises the processing of the cationic resin and/or of the anionic resin with permeate obtained during nanofiltration operation (b), after its concentration to the desired degree.

8. (previously presented) Method according to claim 7, characterized in that it further comprises the operation:

- (e) of chromatography of at least a part of the mother liquor produced by crystallization operation (c), in order to obtain an effluent enriched in sugar and a raffinate enriched in monovalent anions and monovalent metal cations.

9. (previously presented) Method according to claim 8, characterized in that it further comprises the operation:

- (f) of chromatography of a part of the retentate resulting from operation (b), in order to obtain an effluent enriched in sugar and a raffinate enriched in monovalent anions and monovalent metal cations.

10. (currently amended) Method according to claim 9, characterized in that it further comprises the operation:

- (g) of processing of the permeate resulting from operation (b), by reverse osmosis or electrodialysis in order to produce water and an aqueous fraction enriched in monovalent anions and monovalent metal cations.

11. (previously presented) Method according to claim 10, characterized in that it further comprises the operation:

- of regeneration of the cationic resin and/or of the anionic resin by processing the same with at least one of the following liquids, possibly concentrated, combined to a part of the permeate obtained during operation (b): mother liquor obtained during operation (c), raffinate

obtained during operation (e), raffinate obtained during operation (f),
aqueous fraction obtained during operation (g).

12. (currently amended) ~~Use of the method~~Method according to claim 1, for the purification of a whey, of a permeate resulting from the ultrafiltration of a whey or of a juice of sugar beetroot, sugarcane, chicory or Jerusalem Artichokes, this whey, permeate or juice comprising Ca^{2+} and Mg^{2+} ions, Cl^- anions, Na^+ or K^+ cations and anions selected mainly in the group consisting of phosphate and sulfate anions, anions from organic acids and their mixtures.

13. (previously presented) Method according to claim 1, characterized in that the replacement operation (a) comprises the processing of the aqueous solution with a cationic resin of which the counter-ion is a monovalent metal cation and/or with an anionic resin of which the counter-ion is a monovalent anion.

14. (previously presented) Method according to claim 13, characterized in that the monovalent metal cation forming the counter-ion of the cationic resin and the monovalent anion forming the counter-ion of the anionic resin are of the same type as said monovalent metal cations and said monovalent anions present in the initial aqueous solution, respectively.

15. (previously presented) Method according to claim 14, characterized in that it further comprises an operation:

(d) of regeneration of the cationic resin and/or of the anionic resin.

16. (previously presented) Method according to claim 15, characterized in that regeneration operation (d) comprises the processing of the cationic resin and/or of the

anionic resin with permeate obtained during nanofiltration operation (b), after its concentration to the desired degree.

17. (previously presented) Method according to claim 1, characterized in that it further comprises the operation:

- (e) of chromatography of at least a part of the mother liquor produced by crystallization operation (c), in order to obtain an effluent enriched in sugar and a raffinate enriched in monovalent anions and monovalent metal cations.

18. (previously presented) Method according to claim 1, characterized in that it further comprises the operation:

- (f) of chromatography of a part of the retentate resulting from operation (b), in order to obtain an effluent enriched in sugar and a raffinate enriched in monovalent anions and monovalent metal cations.

19. (previously presented) Method according to claim 2, characterized in that the replacement operation (a) comprises the processing of the aqueous solution with a cationic resin of which the counter-ion is a monovalent metal cation and/or with an anionic resin of which the counter-ion is a monovalent anion.

20. (previously presented) Method according to claim 19, characterized in that it further comprises an operation:

- (d) of regeneration of the cationic resin and/or of the anionic resin.